

Consumer Agricultural Education: Starting At The High School Level Health Class

Cecilia Acosta

Agricultural Education and Communication Department

Introduction and Background



The purpose of this project is to analyze and understand the communication gap between the farmer and consumer in order to create a dialogue about misconceptions in the media.

In order for consumers to understand what they are buying, and critically analyze media information, it is necessary to teach agricultural education at the high school level health classes. This project will showcase how to start this education in order to bridge the communication gap starting with five crucial and common food-packaging labels.

These labels include USDA organic, GMO, FDA approval, "All natural" and gluten free.

This terminology will be taught with a visual aid poster that defines and summarizes necessary, factual information. The posters can be handed out to each student as an informational tool to reference in the future or be displayed on classroom walls.

Research

The lack of communication between the farmer and consumer creates problems in the media, with marketing, and as a result, misguided buying choices.

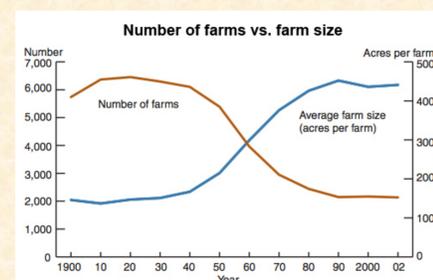
How was this communication lost and why is there a lack of agricultural education?

1. A physical gap between farmers and consumers. In 1900, 41% of the U.S. workforce was agriculture related. In 2004, less than 2% of the workforce were farmers and ranchers (Woolpert, 2017).



Source: The 20th Century Transformation of U.S. Agriculture and Farm Policy, Economic Research Service/USDA

2. The shift from many small farms to few large-scale production facilities. "Since 1900, the number of farms has fallen by 63 percent, while the average farm size has risen by 67 percent" (Dimitri, 2005). This shift is due to technological advances and economical beneficiaries.



Source: The 20th Century Transformation of U.S. Agriculture and Farm Policy, Economic Research Service/USDA

Results

Make Healthy Choices :: Informed Decisions :: Farm-to-Table

Consumer Agricultural Education

GMO
Genetically Modified Organisms
Definition: any organism in which genetic material (DNA) has been altered in a way that does not occur naturally.
Non-GMO examples include: Mating and natural recombination
Labeling is not required for GMO's. "Non-GMO" labels are often used for marketing purposes.

All Natural
The FDA does NOT have a formal definition for using the term "natural" for food labeling. This means there are no policies or strict guidelines to follow in labeling a product "natural".
ANYONE can label their product as "all natural" or "100% natural".

Gluten
A name for proteins found in wheat, rye, barley, some oats and triticale (a cross between rye and wheat).
Found in products such as bread, pasta, beer, cereals, and baked goods.
Celiac disease is when gluten damages the small intestine preventing normal functioning of nutrient absorption.
~ 1% of Americans have celiac disease
~20% of Americans choose to reduce or eliminate gluten in their diet.

FDA Approval
The United States Food and Drug Administration
The FDA regulates all food products and ingredients for sale in interstate commerce except for meat and poultry, which are reviewed by the USDA.
They review tests to examine a food product or medical drug before granting approval.
In order to prevent bias in tests, the manufacturer must work with FDA statisticians, biologists, chemists, physicians, and other experts for analyzing.
They DO NOT approve cosmetics or dietary supplements.
There is no FDA labeling required.

USDA Organic
The USDA organic seal of the United States verifies farmers and businesses follow USDA regulations to be certified Organic.
A Product may label with USDA Organic seal if:
100% organic
Or non-organic ingredients from the National list make up no more than 5% of the product.
These approved methods include cultural, biological, and mechanical practices.
Practices NOT allowed include:
synthetic fertilizers
sewage sludge
irradiation
genetic engineering

Written by: Cecilia Acosta

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Methodology

How to make a teaching aid poster:

1. Choose a user friendly, infographic design website (Ex: Piktochart)
2. Choose a template from the infographics section
3. Choose a background
4. Add a title
5. Make font and sizing adjustments
6. Create sections for each term (5)
7. Use reliable sources such as the USDA and FDA websites
8. Add pictures relating to each section for a visual aid of each label

Conclusion

Although these posters teach five terms used in the industry, they are common labels seen in grocery stores and frequently misinterpreted.

This teaching aid poster is an example of how the agriculture industry can partner with high school's to start teaching an overview of consumer education.

It is essential for the agriculture industry to bridge the communication gap so the future consumers have appropriate knowledge about what they are buying. Adding posters and information like this project provided can close the gap between producers and consumers.

Recommendations:

1. Creating homework assignments that challenge students to speak with their friends, family, and community members would be a great way to expand this dialogue beyond the classroom.
2. Encourage and promote guest speakers in the classroom such as farmers, ranchers, and representatives from the USDA would be a great addition to improving this communication and education.

Resources

1. Dimitri, C. Conklin, N. Efland, A. (2005, June). The 20th century transformation of U.S. agriculture and farm policy. USDA ERS EIB-3.
2. FDA. (2016). "Natural" on food labeling. U.S. department of health and human services.
3. US Census Bureau. (2008). Total Midyear Population for the World: 1950-2050. US Census Bureau, Washington, DC.
4. USDA. (2015). Introduction to organic practices. Agricultural marketing service.
5. Woolpert, M. The greatest challenge facing agriculture over the next 5 years. The University of Vermont. USDA. 2017.